### AIR QUALITY PERMIT

Issued To: Roundup Power Project P.O. Box 1697

Helena, Montana 59624

Permit: #3182-01 Administrative Amendment (AA) Request Received: 11/03/05 Department Decision on AA: 11/22/05

Permit Final: 12/08/05 AFS: #065-0003

An air quality permit, with conditions, is hereby granted to the Roundup Power Project (Roundup Power), pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.740, et seq., as amended, for the following:

#### SECTION I: Permitted Facilities

#### Plant Location Α

Roundup Power is proposing to construct and operate a nominal 780-megawatt (MW) pulverized coal (PC)-fired power plant located approximately 12 miles south-southeast of the town of Roundup, Montana. The site is located immediately east of U.S. Route 87, just north of Old Divide Road, and adjacent to the BMP Investments Incorporated coal mine. The legal description of the site is the NW 1/4 of the SE 1/4 of Section 15, Township 6 North, Range 26 East in Musselshell County. A complete list of the permitted equipment is contained in the permit analysis.

#### **Current Permit Action** B.

On October 17, 2005, the Department of Environmental Quality (Department) determined that construction on the Roundup Power facility had not commenced during the 18-month period provided for in Montana Air Quality Permit (MAOP) #3182-00. That 18-month period expired on June 12, 2005. The Department also determined that granting an extension for MAQP #3182-00 was only appropriate if certain conditions were agreed to and met by Roundup Power. On November 3, 2005, Roundup Power accepted the conditions put forth by the Department. The conditions included more stringent sulfur dioxide (SO<sub>2</sub>), filterable particulate matter with an aerodynamic diameter less than 10 micrometers (PM<sub>10</sub>), and mercury (Hg) emission limits than was previously included in MAOP #3182-00 or its associated case-by-case MACT approval. The extension allows Roundup Power until December 12, 2006, (18 months beyond the original June 12, 2005 date) to commence construction on the project. In addition, the Department updated the permit format, language, and rule references to reflect current rules and practices.

# SECTION II. Conditions and Limitations

#### **Operational and Emission Limitations** A.

- 1. Roundup Power shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over six consecutive minutes (ARM 17.8.304).
- 2. Roundup Power shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308).

- 3. Roundup Power shall treat all unpaved portions of the haul roads, access roads, parking lots, or general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.2 (ARM 17.8.749).
- 4. The primary fuel feed rate for each of the two nominal 390-MW PC boilers (main boilers) shall not exceed 1,646,880 tons of coal per rolling 12-month time period (ARM 17.8.749).
- 5. The annual heat input to each of the main boilers shall not exceed 32,736,120 million British Thermal Units (MMBtu) per rolling 12-month time period (ARM 17.8.749).
- 6. Oxides of nitrogen (NO<sub>x</sub>) emissions from each of the two main boilers shall be controlled with the use of low-NO<sub>x</sub> burners, overfire air, and selective catalytic reduction (SCR). NO<sub>x</sub> emissions shall not exceed 401.3 lb/hr (0.10 lb/MMBtu) based on a 1-hour average (ARM 17.8.749).
- 7. NO<sub>x</sub> emissions from each of the main boilers shall not exceed 280.9 lb/hr (0.07 lb/MMBtu) based on a rolling 24-hour average (ARM 17.8.752).
- 8. Roundup Power shall limit the hours of operation, the capacity, the emission rate, and/or the fuel consumption of the two main boilers such that the sum of the NO<sub>x</sub> emissions from the two main boilers does not exceed 2,291.5 tons during any rolling 12-month time period. Any calculations used to establish NO<sub>x</sub> emissions shall be approved by the Department and shall be based on the NO<sub>x</sub> emissions measured by the continuous emission monitor system (CEMS) for each main boiler, unless otherwise allowed by the Department (ARM 17.8.749).
- 9. Carbon monoxide (CO) emissions from each of the two main boilers shall be controlled by proper boiler design and operation. CO emissions shall not exceed 602.0 lb/hr (0.15 lb/MMBtu) (ARM 17.8.752).
- 10. Roundup Power shall limit the hours of operation, the capacity, the emission rate, and/or the fuel consumption of the two main boilers such that the sum of the CO emissions from the two main boilers does not exceed 4,910.4 tons during any rolling 12-month time period. Any calculations used to establish CO emissions shall be approved by the Department (ARM 17.8.749).
- 11. Sulfur dioxide (SO<sub>2</sub>) emissions from each of the two main boilers shall be controlled with the use of a dry flue gas desulfurization (FGD) system. SO<sub>2</sub> emissions shall not exceed 602.0 lb/hr (0.15 lb/MMBtu) based on a 1-hour average (ARM 17.8.749).
- 12. SO<sub>2</sub> emissions from each of the two main boilers shall not exceed 481.6 lb/hr (0.12 lb/MMBtu) based on a rolling 24-hour average (ARM 17.8.752).
- 13. SO<sub>2</sub> emissions from each of the two main boilers shall not exceed 0.10 lb/MMBtu based on a rolling 30-day average, unless an application is submitted to the Department demonstrating that a different limit is necessary, in which case the limit shall be adjusted accordingly (ARM 17.8.749).

- 14. The control efficiency of the SO<sub>2</sub> emission control equipment, as measured by the inlet SO<sub>2</sub> CEMS (or the "as fired" fuel monitoring system) and the outlet SO<sub>2</sub> CEMS, shall be maintained at a minimum of 90% based on a rolling 30-day average (ARM 17.8.340, ARM 17.8.752, and 40 CFR 60, Subpart Da).
- 15. Roundup Power shall limit the hours of operation, the capacity, the emission rate, and/or the fuel consumption of the two main boilers such that the sum of the SO<sub>2</sub> emissions from the two main boilers does not exceed 3273.6 tons during any rolling 12-month time period. Any calculations used to establish SO<sub>2</sub> emissions shall be approved by the Department and shall be based on the SO<sub>2</sub> emissions measured by the CEMS for each main boiler, unless otherwise allowed by the Department (ARM 17.8.749).
- 16. Particulate matter with an aerodynamic diameter less than 10 micrometers (PM<sub>10</sub>) emissions from each of the two main boilers shall be controlled with the use of a fabric filter baghouse (ARM 17.8.752).
- 17. Filterable PM<sub>10</sub> emissions from each of the two main boilers shall not exceed 0.012 lb/MMBtu, unless an application is submitted to the Department demonstrating that a different limit is necessary, in which case the limit shall be adjusted accordingly (ARM 17.8.749).
- 18. Roundup Power shall limit the hours of operation, the capacity, the emission rate, and/or the fuel consumption of the two main boilers such that the sum of the PM<sub>10</sub> emissions from the two main boilers does not exceed 392.8 tons during any rolling 12-month time period. Any calculations used to establish PM<sub>10</sub> emissions shall be approved by the Department (ARM 17.8.749).
- 19. Volatile Organic Compound (VOC) emissions from each of the two main boilers shall be controlled by proper boiler design and operation. VOC emissions shall not exceed 12.0 lb/hr (0.0030 lb/MMBtu) (ARM 17.8.752).
- 20. Roundup Power shall limit the hours of operation, the capacity, the emission rate, and/or the fuel consumption of the two main boilers such that the sum of the VOC emissions from the two main boilers does not exceed 98.2 tons during any rolling 12-month time period. Any calculations used to establish VOC emissions shall be approved by the Department (ARM 17.8.749).
- 21. Sulfuric Acid (H<sub>2</sub>SO<sub>4</sub>) Mist emissions from each of the two main boilers shall be controlled with the use of dry FGD. H<sub>2</sub>SO<sub>4</sub> emissions shall not exceed 25.7 lb/hr (0.0064 lb/MMBtu) (ARM 17.8.752).
- 22. Hg emissions from each of the two main boilers shall be controlled with an activated carbon injection control system or, at Roundup Power's request and as approved by the Department, an equivalent technology (equivalent in removal efficiency). At the operator's choice, mercury emissions from each main boiler shall not exceed 0.0000015 lb/MMBtu (1.5 lb/trillion Btu) based on a rolling 12-month average or an emission rate equal to a 90% or greater reduction of mercury in the as-fired coal, as measured in pounds per trillion Btu, based on a rolling 12-month average, or the limit specified in any other rule adopted by the Montana Board of Environmental Review (Board) (ARM 17.8.749).

- 23. The stack height for each of the two main boilers shall, at a minimum, be maintained at 574 feet above ground level (ARM 17.8.749).
- 24. SO<sub>2</sub> emissions from each of the two auxiliary boilers shall not exceed 6.47 lb/hr (ARM 17.8.752).
- NO<sub>x</sub> emissions from each of the two auxiliary boilers shall be controlled with low-NO<sub>x</sub> burners or an equivalent control technology. NO<sub>x</sub> emissions shall not exceed 19.8 lb/hr (ARM 17.8.752).
- 26. CO emissions from each of the two auxiliary boilers shall not exceed 4.12 lb/hr (ARM 17.8.752).
- 27. The combined diesel consumption of the two auxiliary boilers shall be limited to 2,719,200 gallons per rolling 12-month time period (ARM 17.8.749).
- 28. The combined hours of operation of the two auxiliary boilers shall be limited to 3300 hours per rolling 12-month time period (ARM 17.8.749).
- 29. The stack height for each of the two auxiliary boilers shall, at a minimum, be maintained at 259.9 feet above ground level (ARM 17.8.749).
- 30. The sulfur content of the No. 2 fuel oil used in the auxiliary boilers and the emergency backup generator shall not exceed 0.05% sulfur (ARM 17.8.752).
- 31. The operation of the emergency backup diesel generator shall not exceed 200 hours per rolling 12-month time period (ARM 17.8.749).
- 32. Roundup Power shall use any one of the following methods or combination of the following methods to control particulate matter emissions from the coal handling transfer points: dust suppression systems and/or enclosures (ARM 17.8.308 and ARM 17.8.752).
- 33. Roundup Power shall install, operate, and maintain a bin exhaust filter (VE-15) on the surge hopper of the Crusher House to control the particulate emissions from transfer points #15, #16, and #17 (ARM 17.8.752).
- 34. Roundup Power shall install, operate, and maintain a baghouse (EP-27) on the Unit #1 Tripper Room Silo Vent to control the emissions from transfer points #20, #21, and #23 (ARM 17.8.752).
- 35. Roundup Power shall install, operate, and maintain a baghouse (EP-26) on the Unit #2 Tripper Room Silo Vent to control the emissions from transfer points #22, #24, and #25 (ARM 17.8.752).
- 36. Roundup Power shall install and use a wind fence, use dust suppression sprays, and use pile compaction to control particulate emissions from the inactive storage pile (ARM 17.8.752).
- 37. Roundup Power shall install and use a wind fence and use dust suppression sprays to control particulate emissions from the active storage pile (ARM 17.8.752).

- 38. Roundup Power shall handle/transfer all lime using a pneumatic system (ARM 17.8.752).
- 39. Roundup Power shall install, operate, and maintain a bin exhaust filter to control the particulate emissions from the emission source points for the lime storage silo bin (VE-42) and the lime feed bin (VE-43) (ARM 17.8.752).
- 40. Roundup Power shall use a vacuum-pressure system to transfer all fly ash (ARM 17.8.752).
- 41. Roundup Power shall install, operate, and maintain a bin exhaust filter to control the particulate emissions from the emission source points for the fly ash handling system (EP-50, EP-51, EP-52, EP-53, and EP-54) (ARM 17.8.752).
- 42. All baghouses/bin exhaust filters used to control emissions from coal handling, lime handling, and fly ash handling shall be designed, maintained, and operated such that particulate emissions do not exceed 0.01 gr/dscf (ARM 17.8.752).
- 43. Roundup Power shall utilize air-cooled condensers (ACC) within the process (ARM 17.8.749).
- 44. Roundup Power shall comply with all applicable standards and limitations, and the reporting, monitoring, recordkeeping, testing, and notification requirements contained in 40 CFR 60, Subpart Da (ARM 17.8.340 and 40 CFR 60).
- 45. Roundup Power shall comply with all applicable standards and limitations, and the reporting, monitoring, recordkeeping, testing, and notification requirements contained in 40 CFR 60, Subpart Db (ARM 17.8.340 and 40 CFR 60).
- 46. Roundup Power shall comply with all applicable standards and limitations, and the reporting, monitoring, recordkeeping, testing, and notification requirements contained in 40 CFR 60, Subpart Y (ARM 17.8.340 and 40 CFR 60).
- 47. Roundup Power shall comply with all applicable standards and limitations, and the reporting, monitoring, recordkeeping, testing, and notification requirements of the Acid Rain Program contained in 40 CFR 72-78 (40 CFR 72 through 40 CFR 78).
- 48. Roundup Power shall comply with all applicable standards and limitations, and the reporting, monitoring, recordkeeping, testing, and notification requirements contained in 40 CFR 63, Subpart B (ARM 17.8.341 and 40 CFR 63).

#### B. Testing Requirements

- 1. Roundup Power shall use the data from the continuous opacity monitoring system (COMS) to monitor compliance with the opacity limit contained in Section II.A.1, for each of the main boilers (ARM 17.8.749).
- 2. Roundup Power shall use the data from the NO<sub>x</sub> CEMS to monitor compliance with the NO<sub>x</sub> emission limits contained in Section II.A.6, Section II.A.7, and Section II.A.8, for each of the main boilers (ARM 17.8.105 and 17.8.749).
- 3. Roundup Power shall test each of the two main boilers for CO within 180 days of initial start-up of the respective boiler, or according to another testing/monitoring schedule as may be approved by the Department, to monitor compliance with the CO

- emission limits contained in Section II.A.9. The testing of each boiler shall continue on an annual basis, or according to another testing/monitoring schedule as may be approved by the Department (ARM 17.8.105 and ARM 17.8.749).
- 4. Roundup Power shall use the data from the SO<sub>2</sub> CEMS to monitor compliance with the SO<sub>2</sub> emission limits contained in Section II.A.11, Section II.A.12, Section II.A.13, and Section II.A.15, for each of the main boilers (ARM 17.8.105 and 17.8.749).
- 5. Roundup Power shall test each of the two main boilers for PM<sub>10</sub> within 180 days of initial start-up of the respective boiler, or according to another testing/monitoring schedule as may be approved by the Department, to monitor compliance with the PM<sub>10</sub> emission limit contained in Section II.A.17. The testing of each boiler shall continue on an annual basis, or according to another testing/monitoring schedule as may be approved by the Department (ARM 17.8.105 and 17.8.749).
- 6. Roundup Power shall test each of the two main boilers for H<sub>2</sub>SO<sub>4</sub> within 180 days of initial start-up of the respective boiler, or according to another testing/monitoring schedule as may be approved by the Department, to monitor compliance with the H<sub>2</sub>SO<sub>4</sub> emission limits contained in Section II.A.21. The testing of each boiler shall continue on an annual basis, or according to another testing/monitoring schedule as may be approved by the Department (ARM 17.8.105 and ARM 17.8.749).
- 7. Roundup Power shall use data from the continuous Hg monitoring methodology described in the final Clean Air Mercury Rule issued March 15, 2005, or other mercury monitoring methods adopted by the Board to monitor compliance with the Hg limit contained in Section II.A.22 (ARM 17.8.749).
- 8. Roundup Power shall test each of the two auxiliary boilers for SO<sub>2</sub> within 180 days of initial start-up of the respective boiler, or according to another testing/monitoring schedule as may be approved by the Department, to monitor compliance with the SO<sub>2</sub> emission limit contained in Section II.A.24 (ARM 17.8.105 and 17.8.749).
- 9. Roundup Power shall test each of the two auxiliary boilers for NO<sub>x</sub> and CO, concurrently, within 180 days of initial start-up of the respective boiler, or according to another testing/monitoring schedule as may be approved by the Department, to monitor compliance with the NO<sub>x</sub> and CO emission limits contained in Sections II.A.25 and II.A.26. The testing of each boiler shall continue on an every five-year basis, or according to another testing/monitoring schedule as may be approved by the Department (ARM 17.8.105 and 17.8.749).
- 10. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
- 11. The Department may require further testing (ARM 17.8.105).

#### C. Operational Reporting Requirements

Roundup Power shall supply the Department with annual production information for all
emission points, as required by the Department in the annual emission inventory
request. The request will include, but is not limited to, all sources of emissions
identified in the emission inventory contained in the permit analysis.

Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used to calculate operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

2. Roundup Power shall notify the Department of any construction or improvement project conducted pursuant to ARM 17.8.745, that would include a change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emission unit.

The notice must be submitted to the Department, in writing, 10 days prior to start up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(l)(d) (ARM 17.8.745).

- 3. All records compiled in accordance with this permit must be maintained by Roundup Power as a permanent business record for at least five years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).
- 4. Roundup Power shall document, by month, the primary fuel feed rate for each of the two main boilers. By the 25<sup>th</sup> day of each month, Roundup Power shall total the primary fuel feed rate for each of the boilers for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.4. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).
- 5. Roundup Power shall document, by month, the annual heat input to each of the two main boilers. By the 25<sup>th</sup> day of each month, Roundup Power shall total the annual heat input to each of the boilers for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.5. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).
- 6. Roundup Power shall document, by month, the amount of NO<sub>x</sub> emissions from the two main boilers. By the 25<sup>th</sup> day of each month, Roundup Power shall total the NO<sub>x</sub> emissions from the two main boilers for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.8. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).
- 7. Roundup Power shall document, by month, the amount of CO emissions from the two main boilers. By the 25<sup>th</sup> day of each month, Roundup Power shall total the CO emissions from the two main boilers for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.10. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).
- 8. Roundup Power shall document, by rolling 30-day period, the percentage of SO<sub>2</sub> removed from the gas stream by the SO<sub>2</sub> control equipment. By the 25<sup>th</sup> day of each month, Roundup Power shall calculate the SO<sub>2</sub> removal efficiency during each rolling

- 30-day period that expired during the previous month to verify compliance with the limitation in Section II.A.13. The information, including the previous 12 months of rolling 30-day SO<sub>2</sub> removal efficiencies for the two main boilers, shall be submitted along with the annual emission inventory (ARM 17.8.749).
- 9. Roundup Power shall document, by month, the amount of SO<sub>2</sub> emissions from the two main boilers. By the 25<sup>th</sup> day of each month, Roundup Power shall total the SO<sub>2</sub> emissions from the two main boilers for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.15. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).
- 10. Roundup Power shall document, by month, the amount of PM<sub>10</sub> emissions from the two main boilers. By the 25<sup>th</sup> day of each month, Roundup Power shall total the PM<sub>10</sub> emissions from the two main boilers for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.18. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).
- 12. Roundup Power shall document, by month, the amount of VOC emissions from the two main boilers. By the 25<sup>th</sup> day of each month, Roundup Power shall total the VOC emissions from the two main boilers for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.20. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).
- 13. Roundup Power shall document, by month, the combined diesel consumption of the two auxiliary boilers. By the 25<sup>th</sup> day of each month, Roundup Power shall total the combined diesel consumption of the two auxiliary boilers during the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.27. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).
- 14. Roundup Power shall document, by month, the combined hours of operation of the two auxiliary boilers. By the 25<sup>th</sup> day of each month, Roundup Power shall total the combined hours of operation of the two auxiliary boilers during the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.28. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).
- 15. Roundup Power shall document, by month, the sulfur content of the No. 2 fuel oil used in the auxiliary boilers and the emergency backup generator to verify compliance with the limitation in Section II.A.30. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).
- 16. Roundup Power shall document, by month, the hours of operation of the emergency backup diesel generator. By the 25<sup>th</sup> day of each month, Roundup Power shall total the hours of operation of the emergency backup diesel generator during the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.31. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

### D. Continuous Monitoring System Requirements

- 1. Roundup Power shall install, operate, calibrate, and maintain continuous monitoring systems for the following:
  - a. A CEMS for the measurement of SO<sub>2</sub> shall be operated on each main boiler stack (ARM 17.8.340; 40 CFR 60, Subpart Da; 40 CFR 60, Subpart Db; and 40 CFR 72-78).
  - b. A flow monitoring system to complement the SO<sub>2</sub> monitoring system shall be operated on each main boiler stack (40 CFR 72-78).
  - c. A CEMS for the measurement of  $NO_x$  shall be operated on each main boiler stack (ARM 17.8.340; 40 CFR 60, Subpart Da; 40 CFR 60, Subpart Db; and 40 CFR 72-78).
  - d. A COMS for the measurement of opacity shall be operated on each main boiler stack (ARM 17.8.340; 40 CFR 60, Subpart Da; 40 CFR 60, Subpart Db; and 40 CFR 72-78).
  - e. A CEMS for the measurement of oxygen (O<sub>2</sub>) or carbon dioxide (CO<sub>2</sub>) content shall be operated on each main boiler stack (ARM 17.8.340 and 40 CFR 60, Subpart Da).
  - f. A CEMS for the measurement of CO<sub>2</sub> content shall be operated on each main boiler stack (40 CFR 72-78).
  - g. A CEMS for measurement of Hg shall be operated on each main boiler stack (ARM 17.8.340 and 40 CFR 60, Subpart Da).
- 2. All continuous monitors required by this permit and by 40 CFR Part 60 shall be operated, excess emissions reported, and performance tests conducted in accordance with the requirements of 40 CFR Part 60, Subpart A; 40 CFR Part 60, Subpart Da; 40 CFR Part 60, Subpart Db; 40 CFR Part 60, Appendix B (Performance Specifications #1, #2, and #3); and 40 CFR Part 72-78, as appropriate (ARM 17.8.340; 40 CFR 60; and 40 CFR 72-78).
- 3. On-going quality assurance requirements for the gas CEMS must conform to 40 CFR Part 60, Appendix F (ARM 17.8.749).
- 4. Roundup Power shall inspect and audit the COMS annually, using neutral density filters. Roundup Power shall conduct these audits using the appropriate procedures and forms in the EPA Technical Assistance Document: Performance Audit Procedures for Opacity Monitors (EPA-450/4-92-010, April 1992). The results of these inspections and audits shall be included in the quarterly excess emission report (ARM 17.8.749).
- 5. Roundup Power shall maintain a file of all measurements from the CEMS, and performance testing measurements; all CEMS performance evaluations; all CEMS or monitoring device calibration checks and audits; adjustments and maintenance performed on these systems or devices, recorded in a permanent form suitable for inspection. The file shall be retained on site for at least five years following the date of such measurements and reports. Roundup Power shall supply these records to the Department upon request (ARM 17.8.749).

6. Roundup Power shall maintain a file of all measurements from the COMS, and performance testing measurements; all COMS performance evaluations; all COMS or monitoring device calibration checks and audits; adjustments and maintenance performed on these systems or devices, recorded in a permanent form suitable for inspection. The file shall be retained on site for at least five years following the date of such measurements and reports. Roundup Power shall supply these records to the Department upon request (ARM 17.8.749).

#### E. Notification

- 1. Roundup Power shall provide the Department (both the Billings regional and Helena offices) with written notification of the following dates within the specified time periods (ARM 17.8.749):
  - a. Commencement of construction of the power generation facility within 30 days after commencement of construction;
  - b. Anticipated start-up date of the facility postmarked not more than 60 days nor less than 30 days prior to start-up;
  - c. Actual start-up date of the first main boiler within 15 days after the actual start-up of the boiler;
  - d. Actual start-up date of the second main boiler within 15 days after the actual start-up of the boiler,
  - e. All compliance source tests as required by the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106), and
  - f. Any malfunction that occurs that can be expected to create emissions in excess of any applicable emission limitations or can be expected to last for a period greater than 4 hours shall be reported to the Department promptly by telephone (ARM 17.8.110).
- 2. Roundup Power shall provide the Department (both the Billings regional and Helena offices) with written notification of the following items within 30 days after actual startup of the power generation facility, or another time period as may be approved by the Department (ARM 17.8.749):
  - a. Make, model, type, size, serial number, year of manufacture, and year of installation of all proposed process equipment identified in Section 4.0 of Montana Air Quality Permit Application #3182-00.
  - b. Make, model, type, size, serial number, year of manufacture, and year of installation of all proposed control equipment identified in Section 5.0 of Montana Air Quality Permit Application #3182-00.
  - c. Make, model, type, size, serial number, year of manufacture, and year of installation of activated carbon injection control system or, at Roundup Power's request and as approved by the Department, an equivalent technology.

#### **SECTION III: General Conditions**

- A. Inspection Roundup Power shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver The permit and the terms, conditions, and matters stated herein shall be deemed accepted if Roundup Power fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations Nothing in this permit shall be construed as relieving Roundup Power of the responsibility for complying with any applicable federal or Montana statute, rule or standard, except as specifically provided in ARM 17.8.740, *et seq.* (ARM 17.8.756).
- D. Enforcement Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement action as specified in Section 75-2-401, *et seq.*, MCA.
- E. Appeals Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefor, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.
- F. Permit Inspection As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by the Department at the location of the source.
- G. Permit Fee Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by Roundup Power may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.
- H. Construction Commencement Construction must begin by December 12, 2006, and proceed with due diligence until the project is complete or the permit will expire (ARM 17.8.762 and ARM 17.8.749).

#### Attachment 2

#### INSTRUCTIONS FOR COMPLETING EXCESS EMISSION REPORTS (EER)

PART 1 Complete as shown. Report total time during the reporting period in hours. The determination of plant operating time (in hours) includes time during unit start up, shut down, malfunctions, or whenever pollutants of any magnitude are generated, regardless of unit condition or operating load.

Excess emissions include all time periods when emissions, as measured by the CEMS, exceed any applicable emission standard for any applicable time period.

Percent of time in compliance is to be determined as:

(1 – (total hours of excess emissions during reporting period / total hours of CEMS availability during reporting period)) x 100

PART 2 Complete as shown. Report total time the point source operated during the reporting period in hours. The determination of point source operating time includes time during unit start up, shut down, malfunctions, or whenever pollutants (of any magnitude) are generated, regardless of unit condition or operating load.

Percent of time CEMS was available during point source operation is to be determined as:

(1–(CEMS downtime in hours during the reporting period<sup>a</sup>/total hours of point source operation during reporting period)) x 100

- a All time required for calibration and to perform preventative maintenance must be included in the CEMS downtime.
- PART 3 Complete a separate sheet for each pollutant control device. Be specific when identifying control equipment operating parameters. For example: number of TR units, energizers for electrostatic precipitators (ESP); pressure drop and effluent temperature for baghouses; and bypass flows and pH levels for scrubbers. For the initial EER, include a diagram or schematic for each piece of control equipment.
- PART 4 Use Table I as a guideline to report <u>all</u> excess emissions. Complete a separate sheet for each monitor. Sequential numbering of each excess emission is recommended. For each excess emission, indicate: 1) time and duration, 2) nature and cause, and 3) action taken to correct the condition of excess emissions. Do not use computer reason codes for corrective actions or nature and cause; rather, be specific in the explanation. If no excess emissions occur during the quarter, it must be so stated.
- PART 5 Use Table II as a guideline to report all CEM system upsets or malfunctions. Complete a separate sheet for each monitor. List the time, duration, nature and extent of problems, as well as the action taken to return the CEM system to proper operation. Do not use reason codes for nature, extent or corrective actions. Include normal calibrations and maintenance as prescribed by the monitor manufacturer. Do not include zero and span checks.
- PART 6 Complete a separate sheet for each pollutant control device. Use Table III as a guideline to report operating status of control equipment during the excess emission. Follow the number sequence as recommended for excess emissions reporting. Report operating parameters consistent with Part 3, Subpart e.
- PART 7 Complete a separate sheet for each monitor. Use Table IV as a guideline to summarize excess emissions and monitor availability.

PART 8 Have the person in charge of the overall system and reporting certify the validity of the report by signing in Part 8.

# **EXCESS EMISSIONS REPORT**

# PART 1

a.	Emission Reporting Perio	d					
b.	Report Date						
c.	Person Completing Repor	t					
d.	Plant Name						
e.	Plant Location	_					
f.	Person Responsible for Rand Integrity of Report						
g.	Mailing Address for 1.f.						
		_					
h.	Phone Number of 1.f.						
i.	Total Time in Reporting I	Period ————					
j.	Total Time Plant Operate	d During Quarter					
k.	Permitted Allowable Emission Rates: Opacity						
	SO <sub>2</sub>	NO <sub>x</sub>	TRS				
1.	Percent of Time Out of C	ompliance: Opacity					
	SO <sub>2</sub>	NO <sub>x</sub>	TRS				
m.	Amount of Product Produ During Reporting Period	ced					
n.	Amount of Fuel Used Du	ring Reporting Period					

# PART 2 - Monitor Information: Complete for each monitor. Monitor Type (circle one) Opacity $SO_2$ $NO_x$ $O_2$ $CO_2$ TRS Flow b. Manufacturer c. Serial No. d. Automatic Calibration Value: Zero \_\_\_\_\_ Span \_\_\_\_ e. f. Date of Last Monitor Performance Test Percent of Time Monitor Available: g. 1) During reporting period 2) During plant operation h. Monitor Repairs or Replaced Components Which Affected or Altered Calibration Values Conversion Factor (f-Factor, etc.) Location of monitor (e.g. control equipment outlet) j. PART 3 - Parameter Monitor of Process and Control Equipment. (Complete one sheet for each pollutant.) Pollutant (circle one): a. $SO_2$ Opacity $NO_x$ TRS Type of Control Equipment b. Control Equipment Operating Parameters (i.e., delta P, scrubber c. water flow rate, primary and secondary amps, spark rate) Date of Control Equipment Performance Test d. Control Equipment Operating Parameter During Performance Test e.

PART 4 -	Excess Emission (by Pollutant)					
	Use Table I: Complete table as per instructions. Complete one sheet for each monitor.					
PART 5 -	Continuous Monitoring System Operation Failures					
	Use Table II: Complete table as per instructions. Complete one sheet for each monitor.					
PART 6 -	Control Equipment Operation During Excess Emissions					
	Use Table III: Complete as per instructions. Complete one sheet for each pollutant control device.					
PART 7 -	Excess Emissions and CEMS performance Summary Report					
	Use Table IV: Complete one sheet for each monitor.					
PART 8 -	Certification for Report Integrity, by person in 1.f.					
	THIS IS TO CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE, THE INFORMATION PROVIDED IN THE ABOVE REPORT IS COMPLETE AND ACCURATE.					
	SIGNATURE					
	NAME —					
	TITLE —					
	DATE					

# TABLE I

# **EXCESS EMISSIONS**

	7	Γime			
<u>Date</u>	From	To	Duration	<u>Magnitude</u>	<b>Explanation/Corrective Action</b>

# TABLE II

# CONTINUOUS MONITORING SYSTEM OPERATION FAILURES

		Time		
Date	From	To	Duration	Problem/Corrective Action

# TABLE III

# CONTROL EQUIPMENT OPERATION DURING EXCESS EMISSIONS

		Time			
<u>Date</u>	From	То	Duration	Operating Parameters	Corrective Action

# TABLE IV

# Excess Emission and CEMS Performance Summary Report

Pollutant (circle one): SO<sub>2</sub> NO<sub>x</sub> TRS H<sub>2</sub>S CO Opacity

# Monitor ID

	Emission data summary <sup>1</sup>	CEMS performance summary <sup>1</sup>			
1.	Duration of excess emissions in reporting period due to:	1. CEMS <sup>2</sup> downtime in reporting due to:			
	<ul><li>a. Startup/shutdown</li><li>b. Control equipment problems</li><li>c. Process problems</li><li>d. Other known causes</li><li>e. Unknown causes</li></ul>	<ul> <li>a. Monitor equipment malfunctions</li> <li>b. Non-monitor equipment malfunctions</li> <li>c. Quality assurance calibration</li> <li>d. Other known causes</li> <li>e. Unknown causes</li> </ul>			
2.	Total duration of excess emissions	2. Total CEMS downtime			
3.		3.  Total CEMS downtime Total time source emitted  X 100 =			

For opacity, record all times in minutes. For gases, record all times in hours. Fractions are acceptable (e.g., 4.06 hours)

<sup>2</sup> CEMS downtime shall be regarded as any time CEMS is not measuring emissions.

# Permit Analysis Roundup Power Project Permit #3182-01

### I. Introduction/Process Description

# A. Permitted Equipment

The Roundup Power Project (Roundup Power) facility will be located approximately 35 miles north of Billings and 12 miles south-southeast of the town of Roundup. The facility's primary equipment will consist of the following:

- Two coal fired generating units, each with a pulverized coal-fired (PC-fired) boiler and a steam turbine-generator with a nominal electrical output of 390-megawatts (MW) (main boilers). Each of the main boilers would be fitted with dry Flue Gas Desulfurization (FGD) systems, Selective Catalytic Reduction (SCR) systems, pulse jet baghouses, and activated carbon injection (or equivalent). The main boilers will use coal as their primary fuel and No.2 fuel oil for startup.
- Two air-cooled condensers
- Two auxiliary boilers fueled with No.2 fuel oil
- · One emergency generator fueled with No.2 fuel oil
- Storage and handling equipment for coal, lime, ash, and No.2 fuel oil
- · 4000-foot long overland conveyor

### B. Source Description

Coal for the main boilers will be supplied by the BMP Investments Incorporated coal mine that is located on the adjacent property immediately to the east of the power plant location. The coal will be transferred to the power plant via a 4000-foot long overland conveyor. The coal that is transferred to the power plant facility will be stored in either the active coal storage pile or in the inactive coal storage pile. The inactive coal storage pile will consist of approximately 92,500 tons of coal (11 days worth of coal storage for the power plant).

From the 25,000-ton active coal storage pile (Transfer House 1), coal will be transferred to the reclaim hoppers and then on to the crusher house. From the crusher house, coal is transferred via conveyors to the main boilers for combustion.

# C. Permit History

On August 22, 2002, Roundup Power submitted a complete application to construct and operate a nominal 780-MW PC-fired power plant to the Department of Environmental Quality (Department). The final Environmental Impact Statement (EIS) for **Montana Air Quality Permit (MAQP) #3182-00** was issued on January 10, 2003. The Department Decision was issued on January 31, 2003, and was subsequently challenged in a contested case hearing by the Montana Environmental Information Center and Environmental Defense in front of the Montana Board of Environmental Review (Board). Following the contested case hearing and pursuant to the Board order resulting from the hearing, the Department added a

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sulfuric acid mist limit to MAQP #3182-00 and issued the permit final on July 21, 2003. In conjunction with, but separate from, the permit, the Department issued its Decision on the Final Notice for Maximum Achievable Control Technology (MACT) Approval for Roundup Power on November 26, 2003. This Decision was subsequently challenged in a contested case hearing by the Montana Environmental Information Center and Environmental Defense in front of the Board. Following the contested case hearing and pursuant to the Board order resulting from the hearing, the Final Notice of MACT Approval was issued on June 4, 2004.

#### D. Current Permit Action

On October 17, 2005, the Department determined that construction on the Roundup Power facility had not commenced during the 18-month period provided for in MAQP #3182-00. That 18-month period expired on June 12, 2005. The Department also determined that granting an extension for MAQP #3182-00 was only appropriate if certain conditions were agreed to and met by Roundup Power. On November 3, 2005, Roundup Power accepted the conditions put forth by the Department. The conditions included more stringent sulfur dioxide ( $SO_2$ ), filterable particulate matter with an aerodynamic diameter less than 10 micrometers ( $PM_{10}$ ), and mercury ( $PM_{10}$ ) emission limits than was previously included in MAQP #3182-00 or its associated case-by-case MACT approval. The extension allows Roundup Power until December 12, 2006, (18 months beyond the original June 12, 2005 date) to commence construction on the project. In addition, the Department updated the permit format, language, and rule references to reflect current rules and practices. **MAQP** #3182-01 replaces MAQP #3182-00.

# II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department. Upon request, the Department will provide references for location of complete copies of all applicable rules and regulations or copies where appropriate.

- A. ARM 17.8, Subchapter 1 General Provisions, including but not limited to:
  - 1. <u>ARM 17.8.101 Definitions</u>. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
  - 2. <u>ARM 17.8.105 Testing Requirements</u>. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct test, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.

Initial performance tests are required for the main boilers and the auxiliary boilers as directed by the appropriate New Source Performance Standards (NSPS). Continuous emission monitoring systems (CEMS) will be used to monitor ongoing oxides of nitrogen (NO<sub>x</sub>), SO<sub>2</sub>, and Hg compliance. Continuous opacity monitoring systems (COMS) will be used to monitor ongoing compliance with the opacity limitations. Initial and annual source testing will be used to monitor compliance with the carbon monoxide (CO) and  $PM_{10}$  emission limits for the main boilers.

Initial and every five-year testing will be used to monitor compliance with the  $NO_x$  and CO emission limits for each of the auxiliary boilers. Initial source testing will be used to monitor compliance with the  $SO_2$  emission limit for each of the two auxiliary boilers.

3. <u>ARM 17.8.106 Source Testing Protocol</u>. The requirements of this rule apply to any emission source testing conducted by the Department, any source or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, Montana Code Annotated (MCA).

Roundup Power shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

- 4. <u>ARM 17.8.110 Malfunctions</u>. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than 4 hours.
- 5. <u>ARM 17.8.111 Circumvention</u>. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.
- B. ARM 17.8, Subchapter 2 Ambient Air Quality, including, but not limited to the following:
  - 1. ARM 17.8.204 Ambient Air Monitoring
  - 2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
  - 3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
  - 4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
  - 5. ARM 17.8.213 Ambient Air Quality Standard for Ozone
  - 6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide
  - 7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
  - 8. ARM 17.8.221 Ambient Air Quality Standard for Visibility
  - 9. ARM 17.8.222 Ambient Air Quality Standard for Lead
  - 10. ARM 17.8.223 Ambient Air Quality Standard for PM<sub>10</sub>

Roundup Power must maintain compliance with the applicable ambient air quality standards.

- C. ARM 17.8, Subchapter 3 Emission Standards, including, but not limited to:
  - 1. <u>ARM 17.8.304 Visible Air Contaminants</u>. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.

- 2. <u>ARM 17.8.308 Particulate Matter, Airborne</u>. (1) This rule requires an opacity limitation of 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, Roundup Power shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.
- 3. <u>ARM 17.8.309 Particulate Matter, Fuel Burning Equipment</u>. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this rule.
- 4. <u>ARM 17.8.310 Particulate Matter, Industrial Process</u>. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter in excess of the amount set forth in this rule.
- 5. <u>ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel</u>. (4) Commencing July 1, 1972, no person shall burn liquid or solid fuels containing sulfur in excess of 1 pound of sulfur per million Btu fired. Roundup Power will comply with this rule by combusting low sulfur coal and by applying emission controls for removal of SO<sub>2</sub> from the combustion gases.
- 6. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank is equipped with a vapor loss control device as described in (1) of this rule.
- 7. ARM 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 CFR 60, Standards of Performance for New Stationary Sources (NSPS). Roundup Power is considered an NSPS affected facility under 40 CFR 60 and is subject to the requirements of the following subparts.
  - <u>40 CFR Part 60, Subpart A General Provisions</u>. This subpart applies to all affected equipment or facilities subject to an NSPS subpart as listed below.
  - 40 CFR 60, Subpart Da, Standards of Performance Electric Utility Steam Generating Units for Which Construction is Commenced after September 18, 1978. The main boilers at Roundup Power are affected facilities under this subpart because 1) the electric utility steam generating units are capable of combusting more than 73-MW heat input of fossil fuel and 2) the construction of the facility would occur after September 18, 1978. In addition, as of May 18, 2005, (the final date for the Clean Air Mercury Rules), Roundup Power would be subject to the Hg emission limitations added to Subpart Da.
  - 40 CFR 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units. The auxiliary boilers at Roundup Power are affected facilities under this subpart because 1) the steam generating units will commence construction after June 19, 1984 and 2) the facility will have a heat input capacity from fuels combusted in the steam generating unit of greater than 29 MW. The main boilers are not subject to this subpart because this subpart defines an "affected facility" as a steam generating unit that is not subject to Subpart Da. The main boilers are subject to Subpart Da.

- 40 CFR 60, Subpart Y, Standards of Performance for Coal Preparation Plants. The coal handling equipment at Roundup Power are affected facilities under this subpart because 1) the equipment (such as breakers and crushers) meets the definition of a coal preparation facility as defined in §60.251 and 2) the facility would process more than 200 tons of coal per day.
- 8. <u>ARM 17.8.341 Emission Standards for Hazardous Air Pollutants</u>. This source shall comply with the standards and provisions of 40 CFR 61.
- 9. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. This source, as defined and applied in 40 CFR 63, shall comply with the requirements of 40 CFR 63, as applicable. Roundup Power is subject to the provisions of 40 CFR 63, Subpart B Requirements for Control Technology Determinations for Major Sources in Accordance with Clean Air Act Sections, Sections 112(g) and 112(j), as applicable. Section II.A.48 of this permit identifies the applicable requirement. The Department established case-by-case MACT limits and followed the procedures specified in the ARM 17.8.342 and 40 CFR 63 in a process outside of this permit action resulting in MACT Approval 3182-00-MACT.
- D. ARM 17.8, Subchapter 4 Stack Height and Dispersion Techniques, including, but not limited to:
  - 1. <u>ARM 17.8.401 Definitions</u>. This rule includes a list of definitions used in this chapter, unless indicated otherwise in a specific subchapter.
  - 2. <u>ARM 17.8.402 Requirements</u>. Roundup Power must demonstrate compliance with the ambient air quality standards with a stack height that does not exceed Good Engineering Practices (GEP). Roundup Power made the appropriate demonstration of compliance with the ambient air quality standards.
- E. ARM 17.8, Subchapter 5 Air Quality Permit Application, Operation and Open Burning Fees, including, but not limited to:
  - 1. <u>ARM 17.8.504 Air Quality Permit Application Fees</u>. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. The current permit application is an administrative action; therefore, no fee is required.
  - 2. <u>ARM 17.8.505 When Permit Required--Exclusions</u>. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit (excluding an open burning permit) issued by the Department. The air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that prorate the required fee amount.

- F. ARM 17.8, Subchapter 7 Permit, Construction and Operation of Air Contaminant Sources, including, but not limited to:
  - 1. <u>ARM 17.8.740 Definitions</u>. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
  - 2. <u>ARM 17.8.743 Montana Air Quality Permits--When Required</u>. This rule requires a person to obtain an air quality permit or permit alteration to construct, alter, or use any air contaminant sources that have the Potential to Emit (PTE) greater than 25 tons per year of any pollutant. Roundup Power has a PTE greater than 25 tons per year of NO<sub>x</sub>, CO, SO<sub>2</sub>, PM<sub>10</sub>, and Volatile Organic Compounds (VOCs); therefore, an air quality permit is required.
  - 3. <u>ARM 17.8.744 Montana Air Quality Permits--General Exclusions</u>. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
  - 4. <u>ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes.</u> This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
  - 5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements.
    (1) This rule requires that a permit application be submitted prior to installation, alteration, or use of a source. The current permit action is administrative; therefore, no application is required. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. The current permit action is administrative; therefore, no affidavit of publication is required.
  - 6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
  - 7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.
  - 8. <u>ARM 17.8.755 Inspection of Permit</u>. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
  - 9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving Roundup Power of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq*.
  - 10. <u>ARM 17.8.759 Review of Permit Applications</u>. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.

- 11. <u>ARM 17.8.760 Additional Review of Permit Applications</u>. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those applications that require an environmental impact statement.
- 12. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or altered source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.
- 13. <u>ARM 17.8.763 Revocation of Permit</u>. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
- 14. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.
- 15. <u>ARM 17.8.765 Transfer of Permit</u>. This rule states that an air quality permit may be transferred from one person to another if written notice of Intent to Transfer, including the names of the transferor and the transferee, is sent to the Department.
- G. ARM 17.8, Subchapter 8 Prevention of Significant Deterioration of Air Quality, including, but not limited to:
  - 1. <u>ARM 17.8.801 Definitions</u>. This rule is a list of applicable definitions used in this subchapter.
  - 2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification, with respect to each pollutant subject to regulation under the Federal Clean Air Act (FCAA) that it would emit, except as this subchapter would otherwise allow.

This facility is a listed source because it is a fossil-fuel fired steam-electric plant having more than 250 MMBtu/hr heat input. Furthermore, the facility's emissions are greater than 100 tons per year; therefore, the facility is a major source under the New Source Review (NSR)-Prevention of Significant Deterioration (PSD) program. The current permit action is administrative, and therefore, not subject to NSR/PSD review.

- H. ARM 17.8, Subchapter 12 Operating Permit Program Applicability, including, but not limited to:
  - 1. <u>ARM 17.8.1201 Definitions</u>. (23) Major Source under Section 7412 of the FCAA is defined as any source having:
    - a. PTE > 100 tons/year of any pollutant;
    - b. PTE > 10 tons/year of any one Hazardous Air Pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or
    - c. PTE > 70 tons/year of  $PM_{10}$  in a serious  $PM_{10}$  nonattainment area.
  - 2. <u>ARM 17.8.1204 Air Quality Operating Permit Program</u>. (1) Title V of the FCAA amendments of 1990 requires that all sources, as defined in ARM 17.8.1204(1), obtain a Title V Operating Permit. In reviewing and issuing Air Quality Permit #3182-01 for Roundup Power, the following conclusions were made:
    - a. The facility's PTE is greater than 100 tons/year for PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, and CO.
    - b. The facility's PTE is greater than 10 tons/year for an individual HAP and greater than 25 tons/year for the combination of all HAPs.
    - c. This source is not located in a serious  $PM_{10}$  nonattainment area.
    - d. This facility is subject to several current NSPS (40 CFR 60, Subparts A, Da, Db, and Y).
    - e. This facility is currently subject to case-by-case MACT (40 CFR 63, Subpart B, as applicable).
    - f. This source is a Title IV affected source.
    - g. This source is not an EPA designated Title V source.

Based on these facts, the Department determined that Roundup Power is a major source of emissions as defined under the Title V Operating Permit Program.

# III. BACT Determination

A BACT determination is required for each new or altered source. Roundup Power shall install on the new or altered source the maximum air pollution control capability, which is technically practicable and economically feasible, except that BACT shall be utilized. A BACT analysis was not required for the current permit action because the current permit action is considered an administrative action.

# IV. Emission Inventory

Source	$PM_{10}$	$SO_2$	$NO_x$	VOC	CO	HAPs	Pb
	(tpy)	(tpy)	(tpy)	(tpy)	(tpy)	(tpy)	(tpy)
Main Boiler #1 (MP-1)	196.4	1636.8	1145.7	49.1	2455.2	45.09	0.10
Main Boiler #2 (MP-2)	196.4	1636.8	1145.7	49.1	2455.2	45.09	0.10
Auxiliary Boiler #1 (AB-1)	1.36	5.34	16.32	0.17	3.40	0.15	0.00
Auxiliary Boiler #2 (AB-2)	1.36	5.34	16.32	0.17	3.40	0.15	0.00
Backup Generator (BG-1)	0.05	0.08	4.42	0.10	0.10	0.00	0.00
Coal Handling	8.29						
Lime Handling	1.06						
Fly Ash Handling	5.26						
Totals	410.2	3284.4	2328.5	98.64	4917.3	90.48	0.20

## Main Power Boiler #1 (MP-1)

Fuel: Pulverized bituminous coal

Nominal Gross Plant Output = 390,100 kW

Nominal Net Plant Output = 350,172 kW

Maximum Short Term Primary Fuel Feed Rate = 202 ton/hr

Maximum Short Term Heat Input to Boiler = 4013 MMBtu/hr

Maximum Long Term Primary Fuel Feed Rate = 188 ton/hr

Maximum Long Term Heat Input to Boiler = 3737 MMBtu/hr

Sorbent Feed Rate = 10,332 lb/hr (45,255 ton/yr)

Annual Capacity Factor = 100% per year

#### PM<sub>10</sub> Emissions

Emission Factor (uncontrolled) = 8.16 lb/MMBtu

Emission Factor (controlled) = 0.012 lb/MMBtu (permit condition)

Calculations: 0.012 lb/MMBtu \* 4013 MMBtu/hr = 48.2 lb/hr (short-term value)

0.012 lb/MMBtu \* 3737 MMBtu/hr = 44.8 lb/hr (long-term average value)

44.8 lb/hr \* 8760 hr/yr \* 0.0005 ton/lb = 196.4 ton/yr (annual limit)

#### SO<sub>x</sub> Emissions

Emission Factor (uncontrolled) = 2.17 lb/MMBtu

Calculations: 0.15 lb/MMBtu \* 4013 MMBtu/hr = 602.0 lb/hr (1-hr limit)

0.12 lb/MMBtu \* 4013 MMBtu/hr = 481.6 lb/hr (24-hr limit)

0.10 lb/MMBtu\*3737 MMBtu/hr\*8760 hr/yr\*0.0005 ton/lb=1636.8 ton/yr (annual limit)

### NO<sub>x</sub> Emissions

Emission Factor (uncontrolled) = 31 lb/ton (AP-42, Table 1.1-3, 9/98)

Emission Factor (unc.) = 31 lb/ton \* 188 ton/hr \* 1hr/3737 MMBtu = 1.56 lb/MMBtu

Emission Factor (controlled) = 0.07 lb/MMBtu (permit condition)

Calculation: 0.10 lb/MMBtu \* 4013 MMBtu/hr = 401.3 lb/hr (1-hr limit)

0.07 lb/MMBtu \* 4013 MMBtu/hr = 280.9 lb/hr (24-hr limit)

0.07 lb/MMBtu\*3737 MMBtu/hr\*8760 hr/yr\*0.0005 ton/lb=1145.8 ton/yr (annual limit)

#### **VOC Emissions**

Emission Factor (uncontrolled) = 0.0030 lb/MMBtu (permit condition)

Calculation: 0.0030 lb/MMBtu \* 3737 MMBtu/hr = 11.21 lb/hr (long term average value)

0.0030 lb/MMBtu \* 4013 MMBtu/hr = 12.0 lb/hr (short term limit)

11.21 lb/hr \* 8760 hr/yr \* 0.0005 ton/lb = 49.1 ton/yr (annual limit)

#### **CO** Emissions

Emission Factor (uncontrolled) = 0.15 lb/MMBtu (permit condition)

Calculation: 0.15 lb/MMBtu \* 3737 MMBtu/hr = 560.55 lb/hr (long term average value)

0.15 lb/MMBtu \* 4013 MMBtu/hr = 601.9 lb/hr (short term limit)

560.55 lb/hr \* 8760 hr/yr \* 0.0005 ton/lb = 2455.2 ton/yr (annual limit)

#### **HAP Emissions**

Total HAP emissions were determined for "unwashed coal." A summary of the calculations for the HAP emissions is contained in Permit Application #3182-00 (in Appendix B). The total HAP emissions are the sum of the total emissions from several tables in the appendix. HAPs = 45.09 ton/yr

### Main Power Boiler #2 (MP-2)

Fuel: Pulverized bituminous coal

Nominal Gross Plant Output = 390,100 kW

Nominal Net Plant Output = 350,172 kW

Maximum Short Term Primary Fuel Feed Rate = 202 ton/hr

Maximum Short Term Heat Input to Boiler = 4013 MMBtu/hr

Maximum Long Term Primary Fuel Feed Rate = 188 ton/hr

Maximum Long Term Heat Input to Boiler = 3737 MMBtu/hr

Sorbent Feed Rate = 10,332 lb/hr (45,255 ton/yr)

Annual Capacity Factor = 100% per year

#### PM<sub>10</sub> Emissions

Emission Factor (uncontrolled) = 8.16 lb/MMBtu

Emission Factor (controlled) = 0.012 lb/MMBtu (permit condition)

Calculations: 0.012 lb/MMBtu \* 4013 MMBtu/hr = 48.2 lb/hr (short-term value)

0.012 lb/MMBtu \* 3737 MMBtu/hr = 44.8 lb/hr (long-term average value)

44.8 lb/hr \* 8760 hr/yr \* 0.0005 ton/lb = 196.4 ton/yr (annual limit)

#### SO<sub>x</sub> Emissions

Emission Factor (uncontrolled) = 2.17 lb/MMBtu

Calculations: 0.15 lb/MMBtu \* 4013 MMBtu/hr = 602.0 lb/hr (1-hr limit)

0.12 lb/MMBtu \* 4013 MMBtu/hr = 481.6 lb/hr (24-hr limit)

0.10 lb/MMBtu\*3737 MMBtu/hr\*8760 hr/yr\*0.0005 ton/lb=1636.8 ton/yr (annual limit)

#### NO<sub>x</sub> Emissions

Emission Factor (uncontrolled) = 31 lb/ton (AP-42, Table 1.1-3, 9/98)

Emission Factor (unc.) = 31 lb/ton \* 188 ton/hr \* 1hr/3737 MMBtu = 1.56 lb/MMBtu

Emission Factor (controlled) = 0.07 lb/MMBtu (permit condition)

Calculation: 0.10 lb/MMBtu \* 4013 MMBtu/hr = 401.3 lb/hr (1-hr limit)

0.07 lb/MMBtu \* 4013 MMBtu/hr = 280.9 lb/hr (24-hr limit)

0.07 lb/MMBtu\*3737 MMBtu/hr\*8760 hr/yr\*0.0005 ton/lb=1145.8 ton/yr (annual limit)

#### **VOC Emissions**

Emission Factor (uncontrolled) = 0.0030 lb/MMBtu (permit condition)

Calculation: 0.0030 lb/MMBtu \* 3737 MMBtu/hr = 11.21 lb/hr (long term average value)

0.0030 lb/MMBtu \* 4013 MMBtu/hr = 12.0 lb/hr (short term limit)

11.21 lb/hr \* 8760 hr/yr \* 0.0005 ton/lb = 49.1 ton/yr (annual limit)

#### **CO** Emissions

Emission Factor (uncontrolled) = 0.15 lb/MMBtu (permit condition)

Calculation: 0.15 lb/MMBtu \* 3737 MMBtu/hr = 560.55 lb/hr (long term average value)

0.15 lb/MMBtu \* 4013 MMBtu/hr = 601.9 lb/hr (short term limit)

560.55 lb/hr \* 8760 hr/yr \* 0.0005 ton/lb = 2455.2 ton/yr (annual limit)

#### **HAP Emissions**

Total HAP emissions were determined for "unwashed coal." A summary of the calculations for the HAP emissions is contained in Permit Application #3182-00 (in Appendix B). The total HAP emissions are the sum of the total emissions from several tables in the appendix. HAPs = 45.09 ton/yr

# Auxiliary Boiler #1 (AB-1)

Fuel = No.2 Fuel Oil

Boiler Heat Input with Margin = 117 MMBtu/hr

Fuel Consumption = 6014 lb/hr

Total Fuel Consumption = 824 gal/hr

Annual Fuel Consumption = 1,359,600 gal

Hours of operation = 3300 hours per year combined ( $\approx$ 1650 hours)

Sulfur in Fuel = 0.05%

#### PM<sub>10</sub> Emissions

Emission Factor = 2 lb/1000 gal (AP-42, Table 1.3-1, 9/98)

Calculation: (2/1000) lb/gal \* 824 gal/hr = 1.646 lb/hr

1.646 lb/hr \* 1650 hr/yr \* 0.0005 ton/lb = 1.36 ton/yr

# SO<sub>x</sub> Emissions

Emission Factor = 157\*S lb/1000 gal (AP-42, Table 1.3-1, 9/98)

Calculation: (157(0.05)/1000) lb/gal \* 824 gal/hr = 6.468 lb/hr

6.468 lb/hr \* 1650 hr/yr \* 0.0005 ton/lb = 5.34 ton/yr

#### NO<sub>x</sub> Emissions

Emission Factor = 24 lb/1000 gal (AP-42, Table 1.3-1, 9/98)

Calculation: (24/1000) lb/gal \* 824 gal/hr = 19.78 lb/hr

19.78 lb/hr \* 1650 hr/yr \* 0.0005 ton/lb = 16.32 ton/yr

# **VOC Emissions**

Emission Factor = 0.252 lb/1000 gal (AP-42, Table 1.3-1, 9/98)

Calculation: (0.252/1000) lb/gal \* 824 gal/hr = 0.208 lb/hr

0.208 lb/hr \* 1650 hr/yr \* 0.0005 ton/lb = 0.17 ton/yr

### **CO** Emissions

Emission Factor = 5 lb/1000 gal (AP-42, Table 1.3-1, 9/98)

Calculation: (5/1000) lb/gal \* 824 gal/hr = 4.12 lb/hr

4.12 lb/hr \* 1650 hr/yr \* 0.0005 ton/lb = 3.40 ton/yr

#### **HAP Emissions**

Emission Factors (AP-42, Table 3.4-3, Table 3.4-4, 10/96)

Calculation: See Permit Application #3182-00, Appendix B = 0.15 ton/yr

### Auxiliary Boiler #2 (AB-2)

Fuel = No.2 Fuel Oil

Boiler Heat Input with Margin = 117 MMBtu/hr

Fuel Consumption = 6014 lb/hr

Total Fuel Consumption = 824 gal/hr

Annual Fuel Consumption = 1,359,600 gal/yr per boiler

Hours of operation = 3300 hours per year combined ( $\approx$ 1650 hours)

Sulfur in Fuel = 0.05%

#### PM<sub>10</sub> Emissions

Emission Factor = 2 lb/1000 gal (AP-42, Table 1.3-1, 9/98)

Calculation: (2/1000) lb/gal \* 824 gal/hr = 1.648 lb/hr

1.648 lb/hr \* 1650 hr/yr \* 0.0005 ton/lb = 1.36 ton/yr

#### SO<sub>x</sub> Emissions

Emission Factor = 157\*S lb/1000 gal (AP-42, Table 1.3-1, 9/98)

Calculation: (157(0.05)/1000) lb/gal \* 824 gal/hr = 6.468 lb/hr

6.468 lb/hr \* 1650 hr/yr \* 0.0005 ton/lb = 5.34 ton/yr

# NO<sub>x</sub> Emissions

Emission Factor = 24 lb/1000 gal (AP-42, Table 1.3-1, 9/98)

Calculation: (24/1000) lb/gal \* 824 gal/hr = 19.78 lb/hr

19.78 lb/hr \* 1650 hr/yr \* 0.0005 ton/lb = 16.32 ton/yr

#### **VOC Emissions**

Emission Factor = 0.252 lb/1000 gal (AP-42, Table 1.3-1, 9/98)

Calculation: (0.252/1000) lb/gal \* 824 gal/hr = 0.208 lb/hr

0.208 lb/hr \* 1650 hr/yr \* 0.0005 ton/lb = 0.17 ton/yr

#### **CO** Emissions

Emission Factor = 5 lb/1000 gal (AP-42, Table 1.3-1, 9/98)

Calculation: (5/1000) lb/gal \* 824 gal/hr = 4.12 lb/hr

4.12 lb/hr \* 1650 hr/yr \* 0.0005 ton/lb = 3.40 ton/yr

#### **HAP Emissions**

Emission Factors (AP-42, Table 3.4-3, Table 3.4-4, 10/96)

Calculation: See Permit Application #3182-00, Appendix B = 0.15 ton/yr

# Backup Generator (BG-1)

Fuel = No.2 Fuel Oil

Size = 2336.2 Hp

Max. Sulfur in Fuel = 0.05%

Fuel Consumption = 111.5 gal/hr

Hours of operation = 200 hours per year

#### PM<sub>10</sub> Emissions

Emission Factor = 0.52 lb/hr (Manufacturer's Data)

Calculation: 0.52 lb/hr \* 200 hr/yr \* 0.0005 ton/lb = 0.05 ton/yr

### SO<sub>x</sub> Emissions

Emission Factor = 0.00355 lb/gal (Mass Balance - Allowable Sulfur in Fuel) Calculation: 0.00355 lb/gal \* 111.5 gal/hr \* 2 lb SO<sub>2</sub>/lb S = 0.7917 lb/hr 0.7917 lb/hr \* 200 hr/yr \* 0.0005 tons/lb = 0.08 ton/yr

### NO<sub>x</sub> Emissions

Emission Factor = 44.22 lb/hr (Manufacturer's Data)

Calculation: 44.22 lb/hr \* 200 hr/yr \* 0.0005 ton/lb = 4.42 ton/yr

#### **VOC Emissions**

Emission Factor = 0.98 lb/hr (Manufacturer's Data)

Calculation: 0.98 lb/hr \* 200 hr/yr \* 0.0005 ton/lb = 0.10 ton/yr

#### **CO** Emissions

Emission Factor = 0.95 lb/hr (Manufacturer's Data)

Calculation: 0.95 lb/hr \* 200 hr/yr \* 0.0005 ton/lb = 0.10 ton/yr

#### **HAP Emissions**

Emission Factors (AP-42, Table 3.4-3, Table 3.4-4, 10/96)

Calculation: See Permit Application #3182-00, Appendix B = 0.00 ton/yr

# V. Existing Air Quality

As part of complying with the PSD program requirements for Permit #3182-00, Roundup Power was required to conduct on-site pre-monitoring for  $PM_{10}$  and  $SO_2$ , because air modeling showed the concentrations of these pollutants to exceed the levels identified in ARM 17.8.818(7). Roundup Power requested to use, and the Department agreed to accept, ambient  $PM_{10}$  data that was collected by Meridian Minerals Company from March 1989 through March 1992. The Department agreed that this data was representative of the year preceding the permit application because there have been no significant new sources of  $PM_{10}$  added to the area or removed from the area. The measured  $PM_{10}$  values yielded an annual average  $PM_{10}$  concentration of  $PM_{10}$  and the maximum measured 24-hour concentration was 53  $\mu g/m^3$  (compared to standards of 50  $\mu g/m^3$  for the annual average, and 150  $\mu g/m^3$  for the 24-hour average).

Ambient monitoring was conducted by Roundup Power to measure the concentration of  $SO_x$  in the project area. Roundup Power began collecting ambient  $SO_x$  data on January 1, 2002. Based upon the ambient  $SO_x$  data collected, the amount of  $SO_2$  in the immediate area of the project facility is relatively low (highest measured 1-hour concentration was 16 ppb, highest measured 3-hour concentration was 10 ppb, highest measured 24-hour concentration was 3 ppb). Because the measured concentrations of  $SO_x$  were relatively low, the Department decided that four months of pre-monitoring data would satisfy the requirements of ARM 17.8.822. All of the measured concentrations were very low in comparison to the applicable Montana and Federal ambient air quality standards.

Roundup Power also elected to conduct ambient monitoring to measure the concentration of  $NO_2$  in the project area. Roundup Power began collecting ambient  $NO_2$  data on January 1, 2002. Based upon the pre-monitoring data collected, the amount of  $NO_2$  in the immediate area of the project facility is relatively low (highest measured 1-hour concentration was 8 ppb for  $NO_2$ ). The measured concentrations were very low in comparison to the applicable 1-hour Montana ambient air quality standards.

Baseline monitoring was not conducted for any other air pollutants. The project area for Permit #3182-00 is considered to be in attainment of all air quality standards.

# VI. Ambient Air Impact Analysis

The Department determined, based on ambient air modeling, that the air quality impacts from Permit #3182-00 will be mostly minor. A more detailed description of the ambient air quality impacts from Permit #3182-00 is contained in that permit application and the final environmental impact statement (EIS). No increases in emissions are included in this permitting action, therefore, the Department believes this permitting action will not cause or contribute to a violation of any ambient air quality standard.

# VII. Visibility Impact Analysis

For Permit #3182-00, CALPUFF modeling was conducted by Roundup Power and the FLMs to determine the impacts from this facility on the visibility of the nearby federal mandatory Class I areas. Based upon the information contained in the initial permit application and the information contained in the preliminary determination for Permit #3182-00, the FLMs submitted correspondence indicating their belief that Roundup Power would lead to an adverse impact on visibility in nearby Class I areas. However, after that submittal, Roundup Power submitted an additional case-by-case analysis for the days of modeled impact. After determining that the new data indicates an adverse impact will not result from the Roundup Power facility, the FLMs withdrew their determination that an adverse impact would result from Roundup Power.

# VIII. Taking or Damaging Implication Analysis

As required by 2-10-105, MCA, the Department conducted a private property taking and damaging assessment and determined there are no taking or damaging implications.

# IX. Environmental Assessment

This permitting action will not result in an increase of emissions from the facility and is considered an administrative action; therefore, an Environmental Assessment is not required.

Permit Analysis Prepared By: Debbie Skibicki

Date: 11/16/05